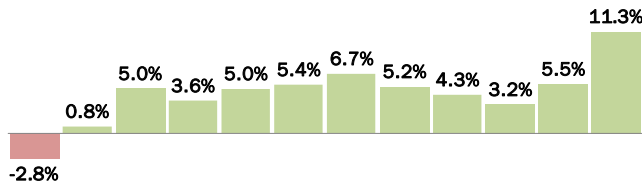


## Ridership



**Average Weekday Ridership**  
 Dec 2011: 1.2M  
 Up 11.3 % from Dec 2010

Year-to-Year Change: Jan 2011 to Dec 2011



## Vehicle Maintenance

The MBTA measures in mean-miles between failures, the average distance a vehicle travels between breakdowns.

|                     | Goal   | Dec-11 |
|---------------------|--------|--------|
| Red                 | 39,000 | 62,245 |
| Orange              | 32,000 | 67,638 |
| Blue                | 26,000 | 53,387 |
| Green               | 5,500  | 4,244  |
| Commuter Rail (Dec) | 10,200 | 6,721  |
| Bus                 | 6,600  | 8,332  |

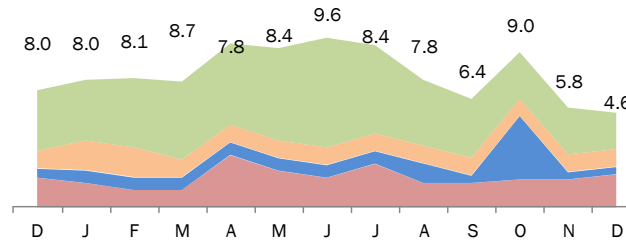
## Schedule Performance

The MBTA measures reliability as the percentage of scheduled service operated. This measure captures our ability to maintain the system well and operate reliably.

|        | Dec-11 |
|--------|--------|
| Red    | 99%    |
| Orange | 99%    |
| Blue   | 100%   |
| Green  | 100%   |
| Bus    | 99%    |

## System Maintenance

A key measure of system maintenance is the travel time impact of slowdowns caused by track condition. Impact is measured as minutes of speed restrictions.



## Accessibility

Elevator Uptime: **99.6%**  
 Escalator Uptime: **99.5%**

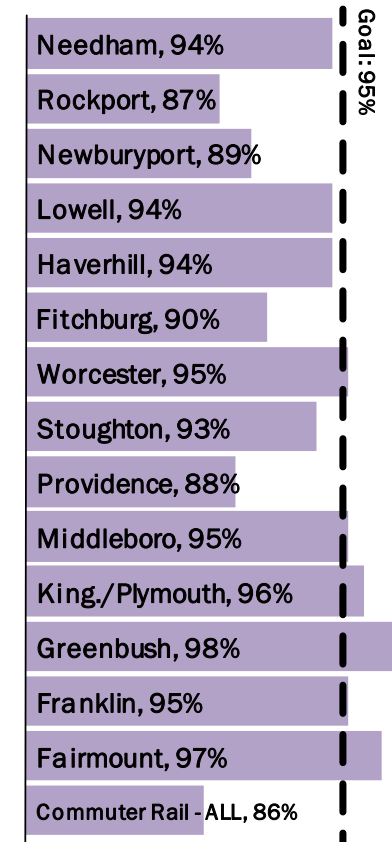
## Safety

| Incidents per 1,000 vehicle-miles traveled |        |           |
|--|--------|-----------|
|  | Jun-11 | 6 Mos Avg |
| Red  | 0.008  | 0.006     |
| Orange                                     | 0.015  | 0.009     |
| Blue                                       | 0.003  | 0.002     |
| Green                                      | 0.035  | 0.042     |
| Bus  | 0.082  | 0.092     |

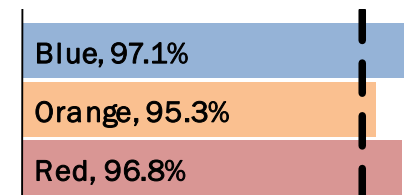
Accidents / Incidents are tracked "per 1,000 vehicle-miles traveled" (or per 100,000 passenger-miles traveled) to allow longer / more frequent lines to be compared fairly against shorter / less frequent lines.

## On-Time Performance

On-Time performance is a key measure of commuter rail performance. A Commuter Rail train is considered "on time" if it arrives five minutes or less after the scheduled time.

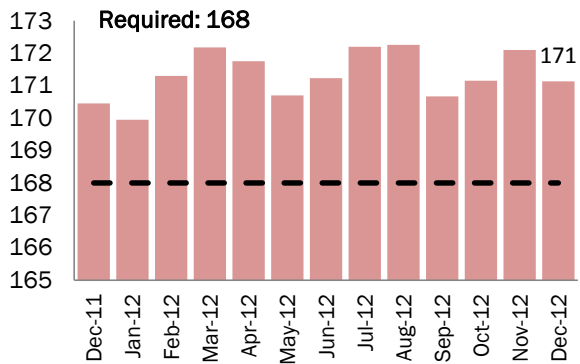


For Subway, On-Time Performance compares the scheduled frequency of service to the actual frequency. An on-time train must leave the first station within 1.5x of the scheduled interval between it and the previous train.

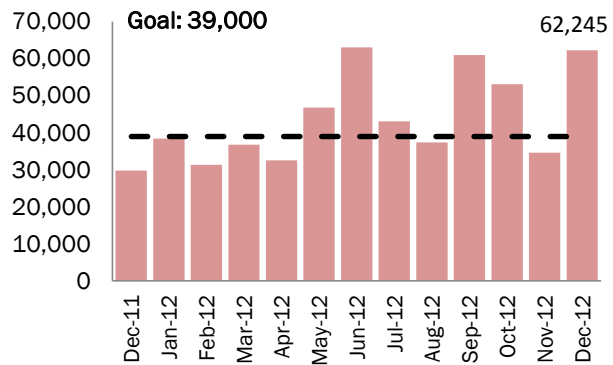


# Red Line

## Vehicle Availability

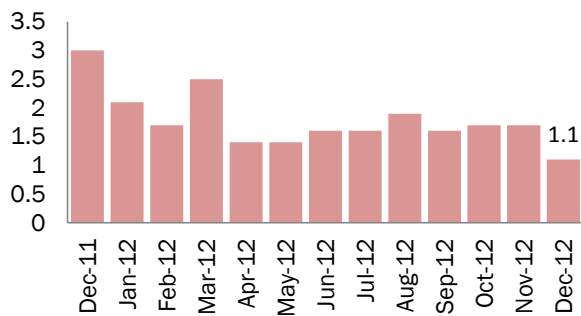


## Mean Miles Between Failures

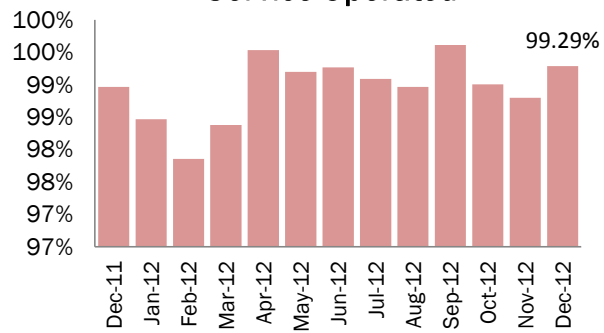


## Speed Restrictions

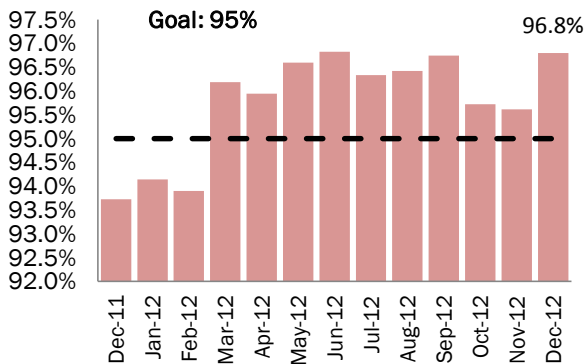
Travel Time in Minutes



## Percentage of Scheduled Service Operated

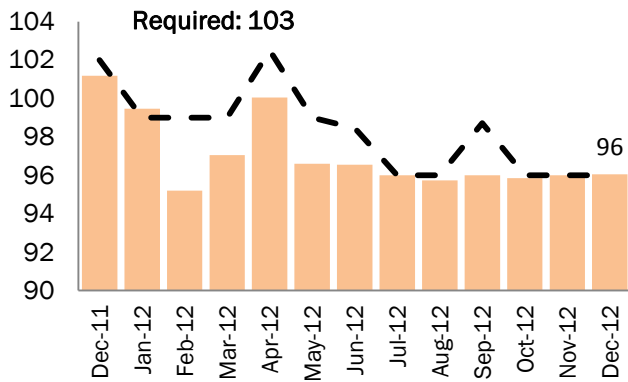


## On-Time Performance

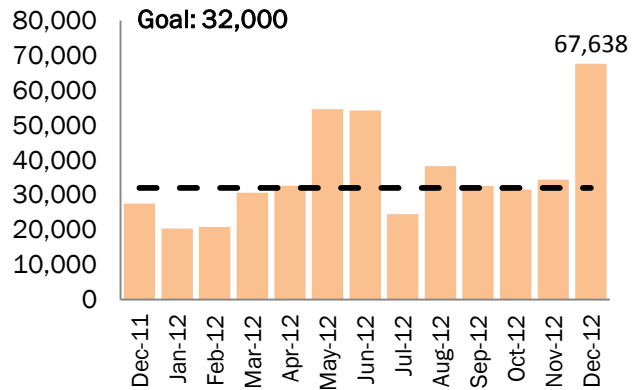


# Orange Line

## Vehicle Availability

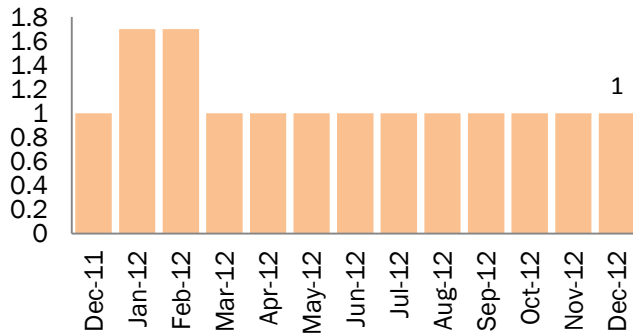


## Mean Miles Between Failures

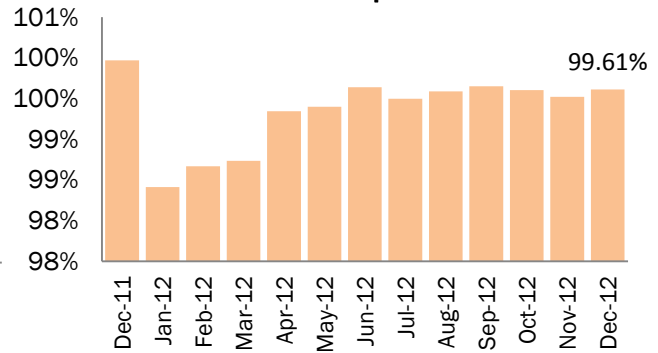


## Speed Restrictions

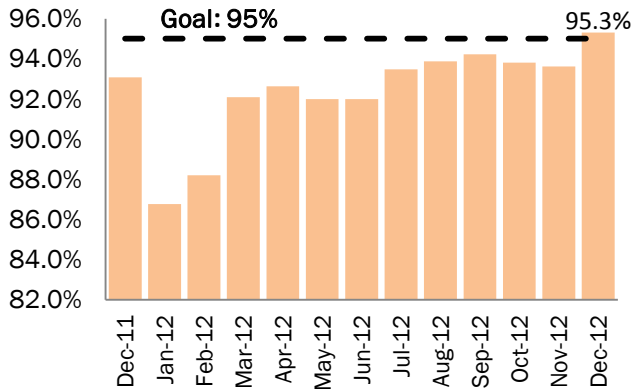
Travel Time in Minutes



## Percentage of Scheduled Service Operated

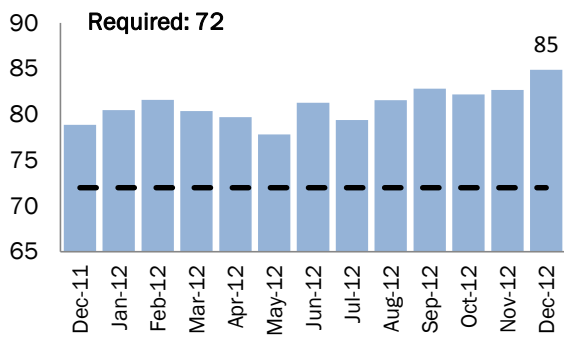


## On-Time Performance

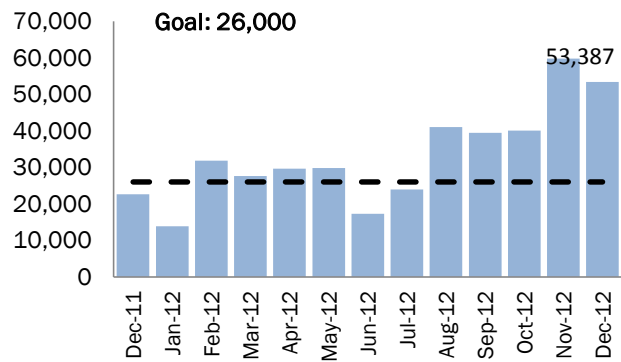


# Blue Line

## Vehicle Availability

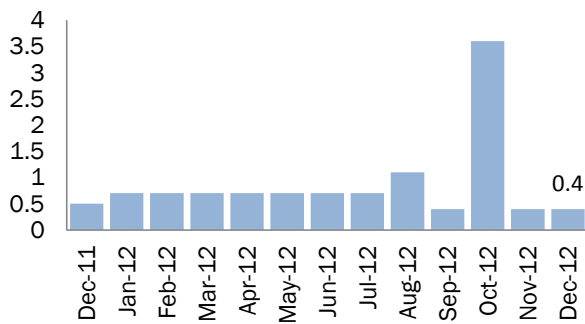


## Mean Miles Between Failures

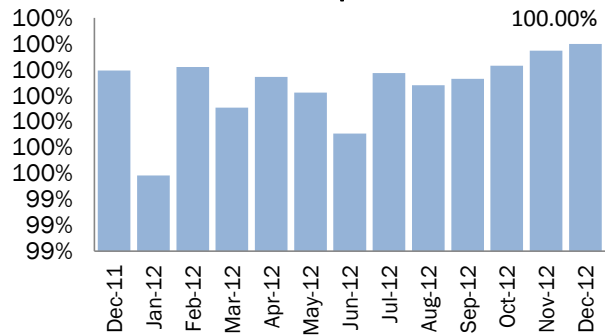


## Speed Restrictions

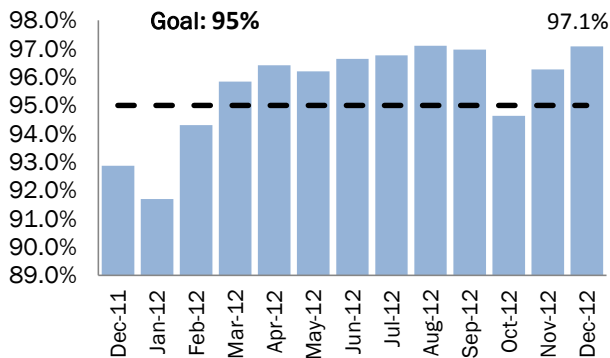
Travel Time in Minutes



## Percentage of Scheduled Service Operated

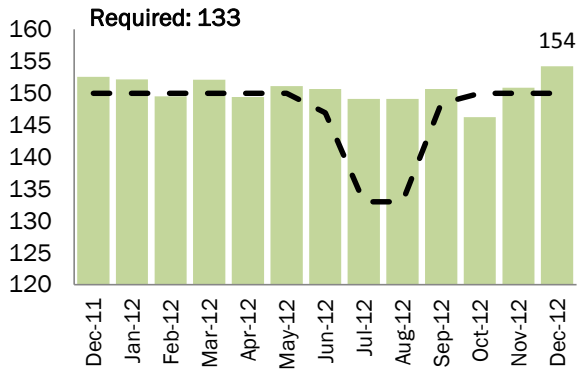


## On-Time Performance

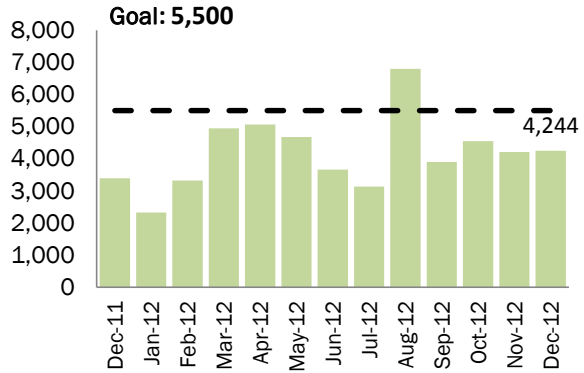


# Green Line

## Vehicle Availability

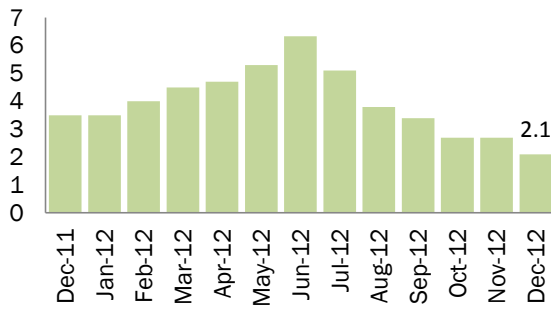


## Mean Miles Between Failures

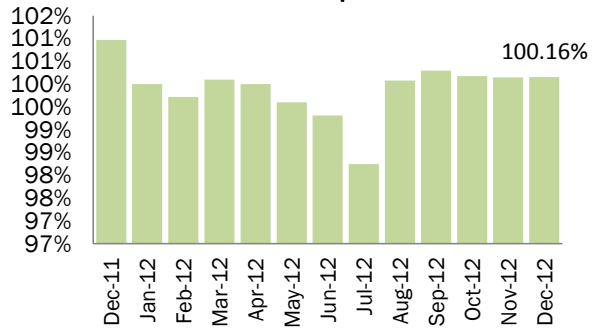


## Speed Restrictions

Travel Time in Minutes

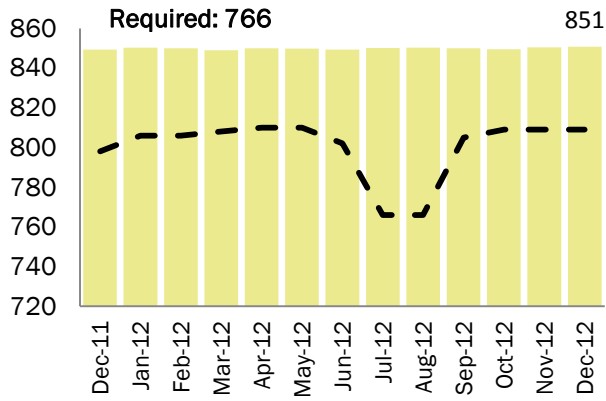


## Percentage of Scheduled Service Operated

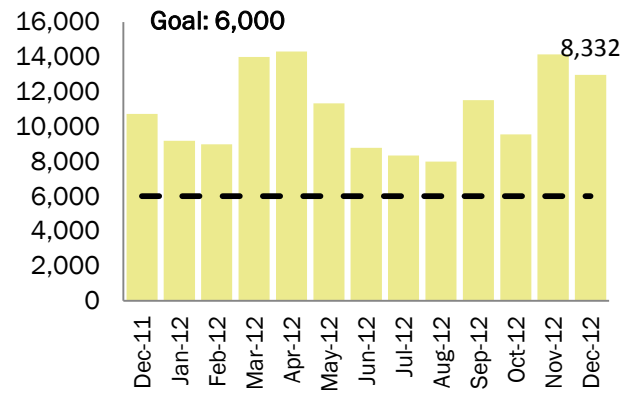


# Bus

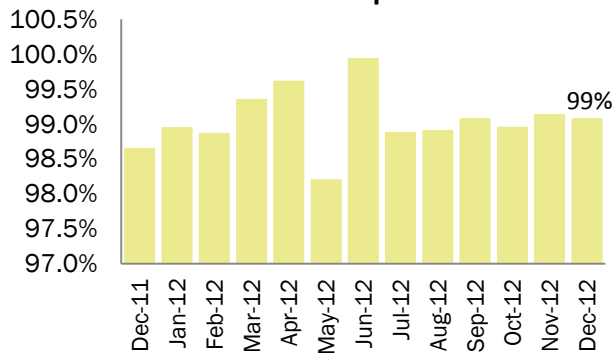
## Vehicle Availability



## Mean Miles Between Failures

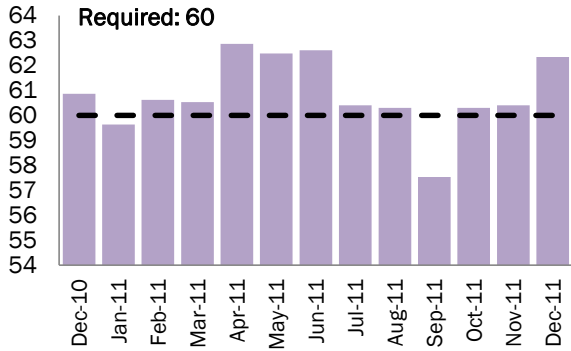


## Percentage of Scheduled Service Operated

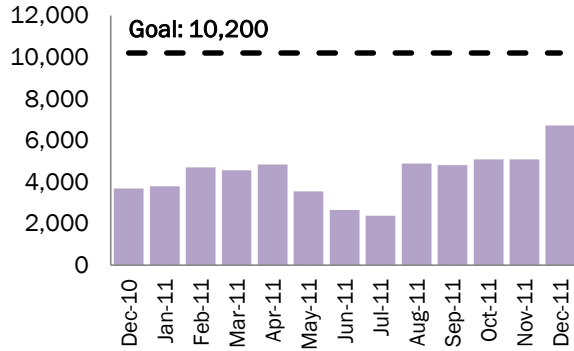


# Commuter Rail

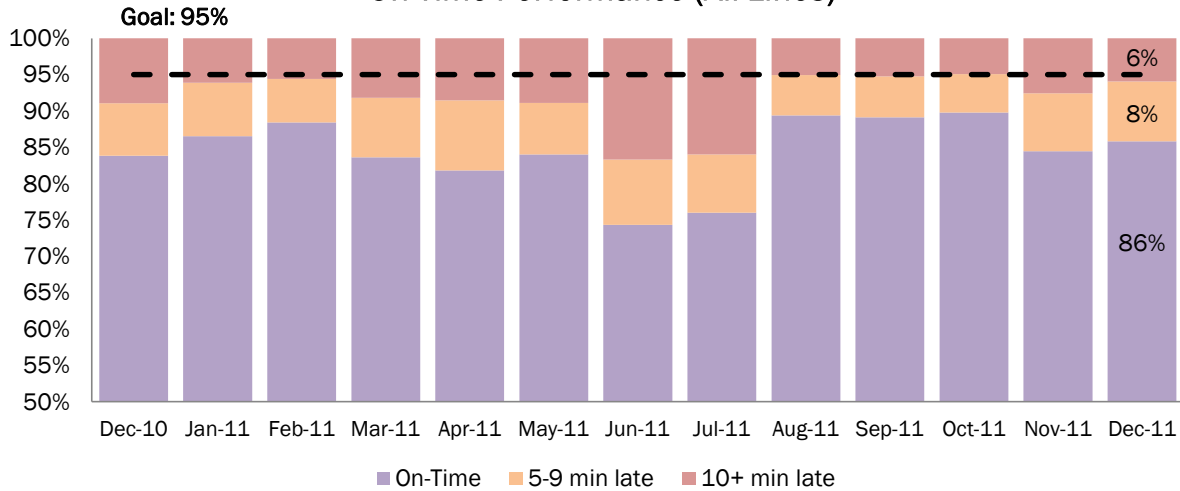
### Locomotive Availability



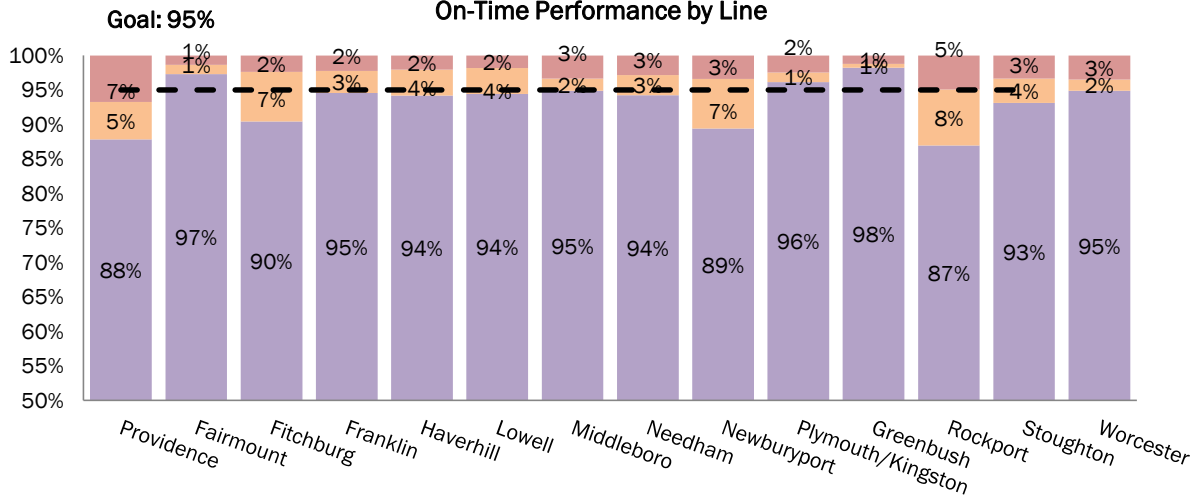
### Mean Miles Between Failures



### On-Time Performance (All Lines)



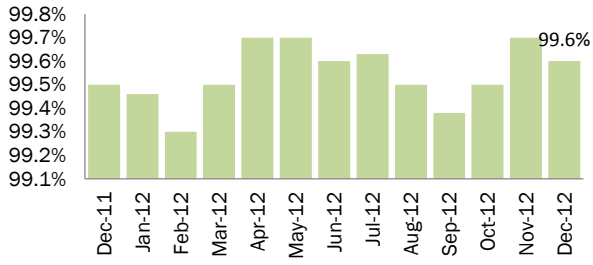
### On-Time Performance by Line



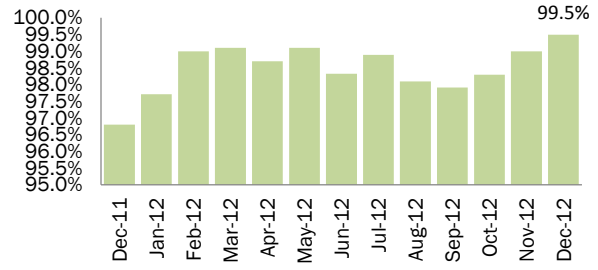
# Stations

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### Elevator Performance



### Escalator Performance





# About The Measures

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## **Vehicle availability (Subway, Bus, Commuter Rail)**

Vehicle availability measures whether there are enough vehicles available to run all the service that is scheduled each day. A vehicle might not be available if it has a mechanical problem or if it is undergoing routine maintenance. Vehicle maintenance works to have enough buses and trains available each day. The number of vehicles required for service varies seasonally and over time as schedules change.

## **Mean Miles Between Failures (Subway, Bus, Commuter Rail)**

Mean Miles Between Failures (MMBF) measures vehicle reliability. It is the average number of miles a vehicle travels between breakdowns. If one vehicle travels 5,000 miles in a month, and breaks down twice during that time, that vehicle has an MMBF of 2,500. Values can fluctuate greatly from month to month if the total number of failures is already small. High MMBF is achieved through ongoing vehicle maintenance, which includes everything from oil changes to major midlife overhauls, and by periodically buying new vehicles to replace old ones as they reach the end of their useful life.

## **Speed Restrictions (Subway)**

Speed restrictions measure the amount of slowdown caused by track conditions. If a section of track falls below standards in some way, such as if the rail is worn down, a speed restriction is put in place to ensure safe operation. Trains operate at a reduced speed when traveling that section of track until the issue is addressed. If the impact on the Orange Line for a month is three minutes, that means that speed restrictions add three minutes to the fastest possible round trip. Trains don't actually operate at the maximum speed allowed by track conditions at all times (they slow down to a stop to pick up passengers, for instance) so the actual impact on travel time may be less than the theoretical impact that's shown.

## **Percent of Scheduled Service Operated (Subway, Bus)**

Percent of Scheduled Service Operated shows the percentage of scheduled trips that the MBTA operated. The MBTA strives to come as close as possible to operating every scheduled trip on every day.

That requires having enough operators, well-maintained vehicles and track, and good schedules; and also keeping a certain number of extra operators and vehicles on standby to fill in if there's a problem. If a trip is nonetheless "dropped" on a frequent bus route or a subway line the MBTA will spread out other trips on the route to try to fill the gap as much as possible. If there's no way to avoid missing a trip on an infrequent bus route the MBTA will notify as many customers as it can via T-Alerts, mbta.com, and the customer support hotline.

On the subway system the trains on standby are sometimes used to run extra trips, so more trips may be operated than scheduled.

## **On-Time Performance (Subway, Commuter Rail)**

On-time performance (OTP) shows how well our service follows our schedules. For each type of service we measure on-time performance differently to reflect the way the customer experiences it.

Subway customers walk to the subway platform at any time and wait for the next train, expecting the trains to run frequently. So the subway OTP standard compares the scheduled frequency of service to the actual frequency. Trains must leave the first station within 150% of the scheduled interval between them. If a Blue Line train is scheduled to leave Wonderland four minutes after the previous

train was scheduled to leave, and it leaves more than six minutes after the previous train left, then the train is late.

Commuter Rail customers use a published schedule of trip times. A Commuter Rail train is considered “on time” if it arrives four minutes or less after the scheduled time. The MBTA also tracks how many trips are less than 10 minutes late, which includes trips that are not “on time” but are still relatively close to schedule.